

A NURSE-PHYSICIAN LED MULTIDISCIPLINARY TEAM IMPROVES ACCESS, TREATMENT, AND MANAGEMENT OF DIABETES AND HIGH BLOOD PRESSURE IN ADULT RESIDENTS OF A RURAL COMMUNITY IN NIGERIA

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BACKGROUND & SIGNIFICANCE

Developing countries have limited medical resources which contributes to high morbidity and mortality rates from diabetes (DM) and hypertension (HTN).

- Number of affected people in the world is expected to increase from 2.8 % to 4.4 % for diabetes and from 26.4% to 29.2% for hypertension from 2000 to 2030.
- Largest increase is expected in Sub-Sahara African countries like Nigeria.
- Nigeria has prevalence rates of about 7.9% for diabetes and 32.8% for hypertension.
- High rates are attributed to lack of awareness, limited access to health care resources, and inadequate treatment.

PURPOSE

To describe an innovative nurse-physician led international collaboration to increase access to health care, improve treatment, and self-management for adults with diabetes and hypertension in a rural community in Nigeria, West Africa.

METHODS

- The nurse conducted a needs assessment of the Diocesan Hospital, Amichi, which serves this rural community. Two priority needs of the hospital and community were medications and running water.
- The nurse collaborated with Mercy Foundation Inc. and Rotary International to provide medications and install running water in the hospital.
- The nurse and physician developed and coordinated a multidisciplinary team to expand health care services to the community.

RESULTS

- Access to care was improved through annual, intensive 3-day health screening program (Fig.1).
 - The screening was broadened from serving the local community to multiple communities because it is the only program of its kind in the area (Table 2).
 - Serves about 800 adults over 3-days.
 - 78% females and 22% males.
- Eye care was provided to prevent and counter effects of untreated DM and HTN (Table 1).
- Treatment has been improved through access to once-a-week, free clinic for follow-up care (Table 3).
 - Emphasizes education and disease self-management through diet and exercise.
- Running water system was installed on the hospital premises and serves patients, staff, and the community.

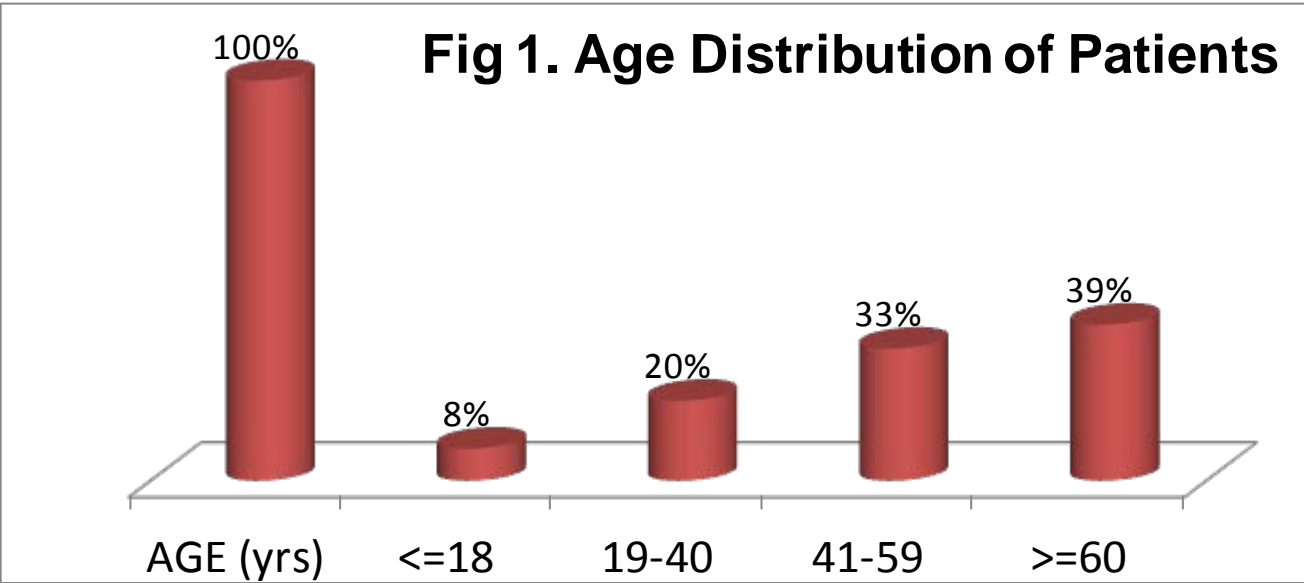


Table 1. Prevalence of Eye Diseases & Disorders

Cataract	Pterygium	Allergy	Refraction Error	Glaucoma	Others
28	10	42	55	10	24
16.6%	5.9%	24.9%	32.5%	5.9%	14.2%

RESULTS

Table 2. Top 10 Communities Served During 2011 Mission

HOMETOWN	Female	Male	Total	% of Total
Amichi	356	131	487	60.72
Nnewi	111	37	148	18.45
Azigbo	22	5	27	3.37
Utuh	20	4	24	2.99
Ekwulumili	18	5	23	2.87
Osumenyi	13	6	19	2.37
Ezinifite	6	3	9	1.12
Unubi	7	2	9	1.12
Ebenator	5	2	7	0.87
Osumuoghu	4	2	6	0.75

Table 3. Weekly Clinic Attendance for Jan & Feb, 2012

Date	Female	Male	Total	DM	HTN	Others
04/01/12	35	11	46	32	13	1
11/01/12	35	15	50	27	18	5
18/01/12	35	12	47	27	13	7
25/01/12	44	12	56	22	8	26
01/02/12	41	12	53	33	19	1
08/02/12	43	10	53	32	15	6
15/02/12	43	5	48	23	19	6
22/02/12	28	7	35	17	12	6
29/02/12	36	10	46	24	9	13

Multidisciplinary Health Care Team



RESULTS

Benefits of nurse-physician collaboration:

- Established a collaboration with Nnamdi Azikiwe University Teaching Hospital.
- Provided experiences in community health and public service for nursing students and health care professionals.
- Promoted goodwill among rural community and visiting volunteers.

CONCLUSIONS

- Nurses can lead effective international collaborations to increase access to treatment and improve management of DM and HTN.
- Collaborations can be useful to identify adults with DM and HTN and provide ongoing treatment/education.
- Services developed through international collaborations require strong grassroots commitment and accountability.
- There is a need to systematically track long-term patient outcomes to facilitate continued improvement in health of the target population.

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